POLYMORPHISM CHARACTERIZATION IN INTRON 1 OF THE GHRL GENE IN MURRAH BUFFALOES (BUBALUS BUBALIS) BY PCR-RFLP

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The Ghrelin (GHRL) is a gastrointestinal hormone and is a powerful stimulator of the growth hormone (GH) in the somatotrophic, pituitary and hypothalamus cells, influencing the general metabolism of the organism. The GH is one of the most important galactopoietics hormones which influence the distribution of the nutrients for milk production in lactating cows. So, the characterization of the GHRL gene in buffaloes is important because it is a candidate gene to study growth, carcass and milk production traits by molecular markers. The aim of this study was characterize the allele and genotypic frequencies of the polymorphism G/A in intron 1 of the GHRL gene in Murrah buffaloes. Ninety eight animals from three farms localized in São Paulo State, Brazil were used analyzed. The animals were genotyped by PCR-RFLP (Polymerase Chain Reaction- Restriction Fragment Length Polymorphism) using the restriction enzyme BsTUI. Three different patterns of migration were obtained representing two allelic variants and three genotypic classes. The G and A allele frequencies were 0.342 and 0.658, respectively. The genotype frequencies for GG, AG and AA were 0.122, 0.439 and 0.439, respectively. These results indicate a high heterozygosity and good distribution of the alleles among the animals. This polymorphism is considered ideal to be studied in associations with traits in dairy Murrah buffaloes.

Financial support: Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq).

Keywords: Restriction enzyme, ghrelin, Milk production, PCR-RFLP, buffaloes